

reproduce themselves with an altered scale-covering, instead of being constituted, as in the original, phylogenetically oldest forms of the family in question, on the primary tail, in all newly acquired parts exhibit an extensive differentiation from the form originally manifested, tubercle-scales, crests, spines, and keeled scales not being reproduced.

2. In the regeneration of the tails of all Saurians which reproduce them with an altered form of scale, the existing outer segmentation of the scaly coat, as well as the development of the preformed points of rupture of the skin, together with the differentiation of a vertebral column, is lost.

3. In some cases in which the scale-covering of the tip of the primary tail is different from that of the substituted tail the secondary tail agrees with the normal tail-tip, which consequently in this respect shows itself really in the original condition.

4. Differentiations of the scale-covering, which are wanting in the regenerated tails of lizards, such as tubercles, ridges, &c., are also not to be recognized in the embryos of the same species until they attain a certain age.

5. The regeneration of the tail generally fails to take place, or takes place to a very limited extent, when it has undergone a special differentiation into offensive or prehensile organs.

6. In cases of a second regeneration the tertiary tail agrees entirely with the secondary so far as the scale-covering is concerned.

7. Within the same family the regenerated tails of all forms agree, especially in the rule as to the arrangement of the scales.—*Sitzungsb. kais. Akad. der Wiss. Wien*, Jahrg. 1896, pp. 34–35.

*On the Mollusca (Prosobranchiata and Opisthobranchiata, Scaphopoda and Lamellibranchiata) Dredged by the Austrian Deep-sea Expeditions of H.M.S. 'Pola' in the Years 1890–94. By Dr. RUDOLF STURANY.*

The question of the uniformity of the Molluscan fauna of the greater depths of the Mediterranean Sea (from about 400 metres onwards), which Fischer asserted and has proved from the results of the 'Travailleur' Expedition, are confirmed afresh by the dredgings of the 'Pola.' Further, the material obtained is of a kind to strengthen the conclusions of Dr. v. Marenzeller, recently published, which, based upon the nature of the various Echinoderms dredged at different depths and the uniform character of the whole deep-sea fauna from 200 metres up to the greatest depths, brought out the fact of the absence of a defined abyssal fauna.

Again, an Atlantic origin has very rightly been ascribed to the deep-sea fauna of the Mediterranean, from the fact that many abyssal mollusks of this basin are identical with Atlantic and North-Atlantic forms and occur in the Tertiary deposits of Sicily and Italy, and their ingress referred to a time when there was a much freer communication between the Atlantic and Mediterranean seas than exists at present (Jeffreys, Fischer).

Species having that distribution were dredged by the 'Pola.'

In this communication the Gastropoda, and, indeed (with the exception of the Heteropoda and Pteropoda), the Scaphopoda and Lamellibranchiata, are discussed. Of these groups there were in all 120 species dredged. In the Mediterranean expedition (I.-IV., 1890-93) there occurred 76 species (36 Gastropoda, 3 Scaphopoda, 37 Lamellibranchiata), in the Adriatic expedition (1894) 63 species (36 Gastropoda, 2 Scaphopoda, 25 Lamellibranchiata); 19 species were found in both seas.

In shallow places more species were naturally dredged than in deep; so in every proportion of the fauna with regard to the vertical distribution of species there must still be reckoned a considerable decrease of species from above downwards. This decrease is a much more striking one than in the western part of the Mediterranean, and it would appear from this, and having regard to the fact that on many stations at great depths the dredge yielded absolutely nothing, that the conclusion is justified that the deeper parts of the Eastern Mediterranean are still poorer than the analogous portions of the western basin.

The deepest part which still yielded molluscan shells was Station no. 82, northward of Alexandria, 2420 metres. Here 9 species were dredged, of which 5 were entirely new to science. One of these species belonged to a new genus, which, from the horizontal position of the hinge-teeth, was named *Isorropodon*. It is a shell of inconsiderable size, with a maximum length of 11 millim. and 8.5 millim. in height, and from its external morphology might be regarded as one of the Veneridæ. The relations of the complicated hinge point, however, to an affinity with *Cypricardia lithophagella*, Lam. In a second new form from the same station the author recognized a representative of the genus *Myrina*, which up to the present is only known as coming from North Australia and South Africa.

The sum total of new species amounted to 9; they comprised 1 littoral of the genus *Scalaria*, 3 continental of the genera *Fusus*, *Lyonsia*, and *Pecchiolia*, and 5 abyssal of the genera *Taranis*, *Defrancia*, *Lucina*, *Isorropodon* (new genus), and *Myrina*.

12 species which up to the present have only been found in the Western Mediterranean or in the Adriatic as the result of the dredging by the 'Pola' must now be regarded as having a distribution in the eastern basin.

One of the species dredged by the 'Challenger' expedition off the Azores extends into the Mediterranean—*Pleurotoma* (*Mangelia*) *macra*, Watson.

Two new varieties of *Raphitoma nuperrima*, Tib., form links with Watson's species *Pleurotoma* (*Mangelia*) *corallina* and *Pleurotoma* (*Mangelia*) *acanthodes* from the West Indies and the Azores.

Nine species, otherwise, it is true, already long known, are new to the fauna of the Adriatic.—*Sitzungsb. kais. Akad. der Wiss. Wien*, Jahrg. 1896, no. vii. pp. 56-59.